

California's Leadership Role in Combating Climate Change

Governor Schwarzenegger's Record on the Environment

ENVIRONMENTAL LEADERSHIP

- ✘ Signed historic climate change law
- ✘ Set the world's first low-carbon standard for transportation fuels
- ✘ Permanently funded the Carl Moyer Program
- ✘ Fought for greenhouse gas standards for cars
- ✘ Opposed oil drilling off California's coast
- ✘ Created the California Ocean Protection Council

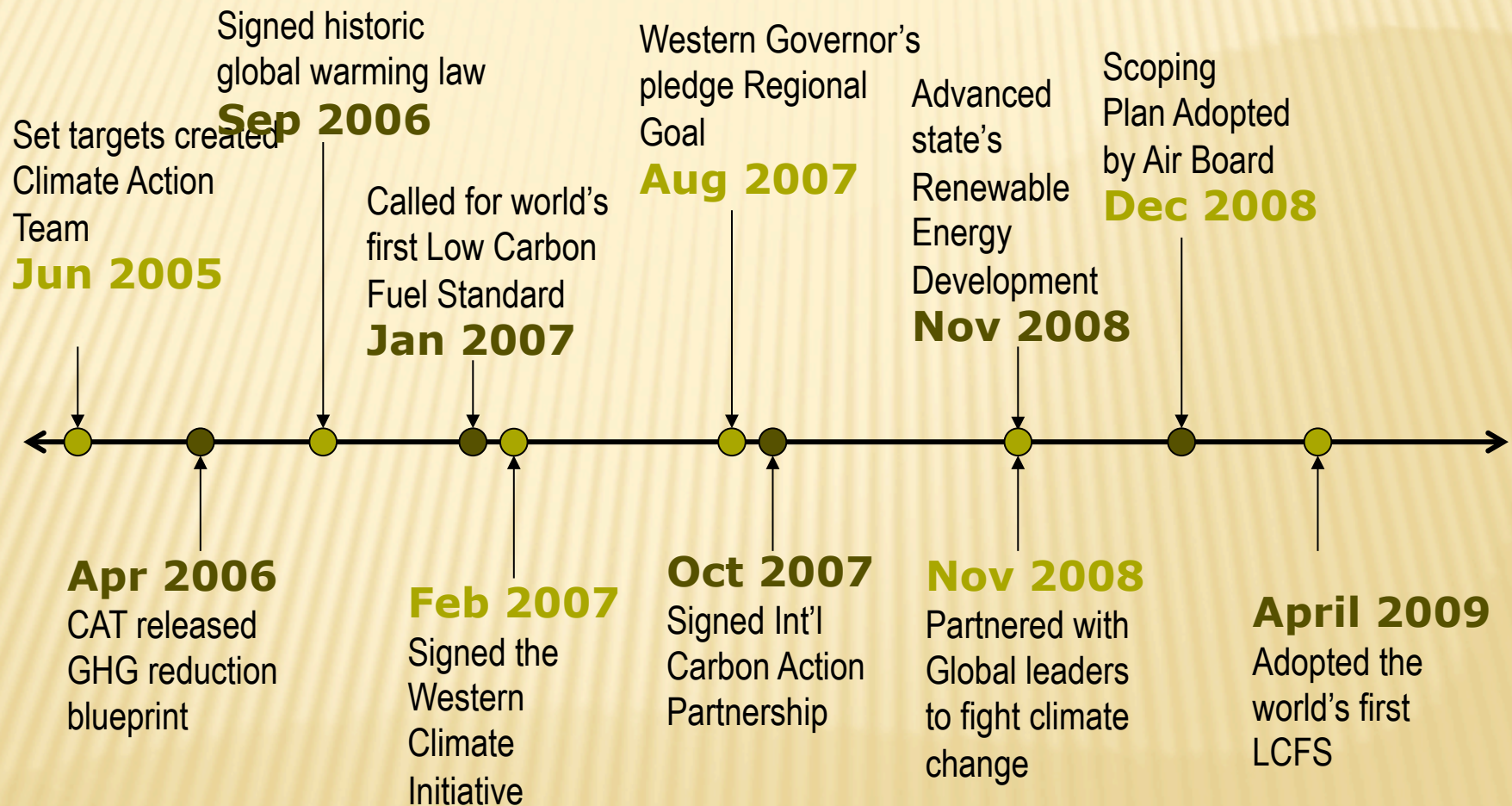


ENVIRONMENTAL LEADERSHIP (CONTINUED)

- ✘ Preserved 82,000 acre Hearst Ranch
- ✘ Created the Sierra Nevada Conservancy
- ✘ Signed a roadless petition
- ✘ Initiated the Hydrogen Highway Network
- ✘ Enhanced the Breathe Easier campaign
- ✘ Introduced the Green Building Initiative
- ✘ Established the Million Solar Roofs Initiative



CLIMATE ACTION



THREATS OF GLOBAL WARMING

- ✗ Devastating environmental and economic impacts
- ✗ Increased temperatures
- ✗ Loss of snowpack
- ✗ Heat waves
- ✗ Rising sea levels



CALIFORNIA'S EMISSIONS

cars and trucks = 40%



energy = 33%



industrial = 20%



agriculture = 6%



waste = 1%



TRANSPORTATION POLICIES



- ✗ Require carmakers to make more efficient cars that pollute less
- ✗ Require oil companies to make cleaner, domestically-produced fuels
- ✗ Require seaports and heavy duty trucks to pollute less
- ✗ Create more livable, walkable cities

PAVLEY REGULATIONS

- ✘ Adopted motor vehicle greenhouse gas emission standards for new models starting in 2009.
 - + Reduce carbon dioxide from vehicles by 18 percent
 - + Remove 6 tons of smog-forming emissions by 2020
- ✘ 13 other states have adopted our standards
- ✘ May 2009, Obama adopted a national standard
- ✘ An overall reduction of 100 million metric tons of GHG; 30% reduction in California.



LOW CARBON FUEL STANDARD

- ✘ Called for the world's first low-carbon standard for transportation fuels
- ✘ 10% reduction in carbon intensity by 2020
- ✘ Will replace 20% of our on-road gasoline consumption with lower-carbon fuels
- ✘ More than triple the size of the state's renewable fuels market
- ✘ Place 7+ million alternative fuel/hybrid vehicles on our roads



CLEAN ENERGY POLICIES



- ✘ Require new appliances and new homes to be more energy efficient
- ✘ Require energy companies to produce a third of their energy from renewable sources like wind, solar and geothermal
- ✘ Promote the development of clean, locally-produced energy

ENERGY EFFICIENCY

- ✘ Energy efficiency standards have saved Californians more than \$56 billion
- ✘ 24 fewer power plants
- ✘ Banned vampire plugs, which draw power to devices even when they're not in use
- ✘ Smart lights have sensors and shut off when no one is in the room – helping make energy efficiency effortless



GOVERNOR'S LEADERSHIP

- ✖ Called for Green Building Initiative to promote energy efficiency in state buildings (reduce power use 10% by 2020)
- ✖ Launched the Million Solar Roofs Initiative (by 2018)
- ✖ Called for the Acceleration of the Renewable Portfolio Standard (20% by 2010, 33% by 2020)



INDUSTRIAL POLICIES



- ✘ More efficient factories produce less pollution
- ✘ Create new jobs for California workers in clean technology industries
- ✘ Develop market system to reduce emissions from biggest sources
- ✘ Scoping Plan covers 800 largest emission sources in California

AGRICULTURE POLICIES



- ✗ Promote more efficient agricultural equipment
- ✗ Establish best practices to increase fuel and water efficiency
- ✗ Develop rules for manure digesters
- ✗ Address impacts on crops and livestock

WASTE MGMT & RECYCLING POLICIES



- ✗ Reduce methane emissions from landfills
- ✗ Move toward high recycling and zero waste
- ✗ Waste reuse and recycling policies have resulted in 58% diversion rate

ECONOMIC BENEFITS OF AB 32

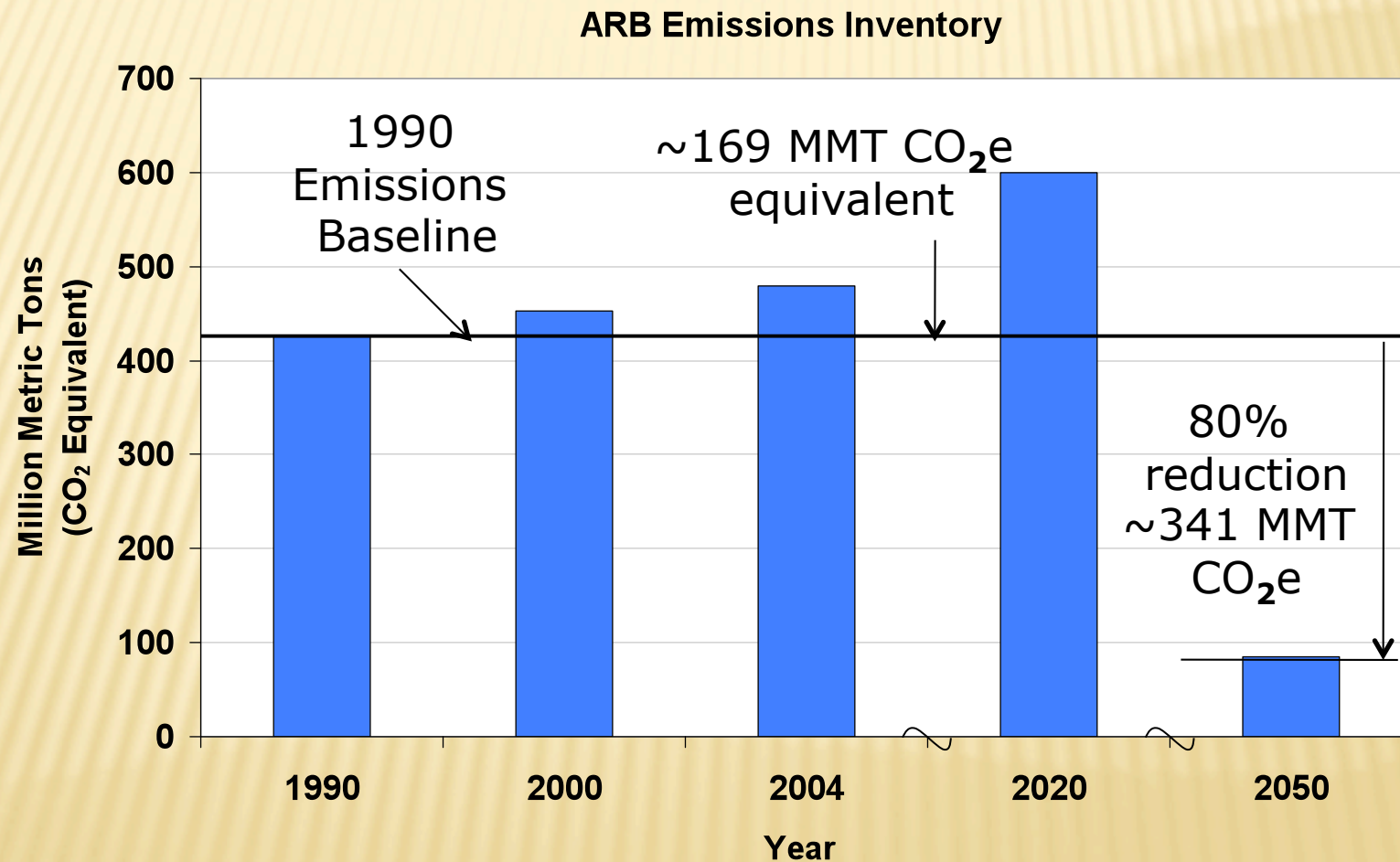
- ✖ Achieving 100 percent of the greenhouse gas emission reduction targets mandated by AB 32 will:
 - + increase the Gross State Product (GSP) by about \$76 billion,
 - + increase real household incomes by up to \$48 billion
 - + create as many as 403,000 new efficiency and climate action driven jobs.

GLOBAL WARMING SOLUTIONS ACT (AB 32)

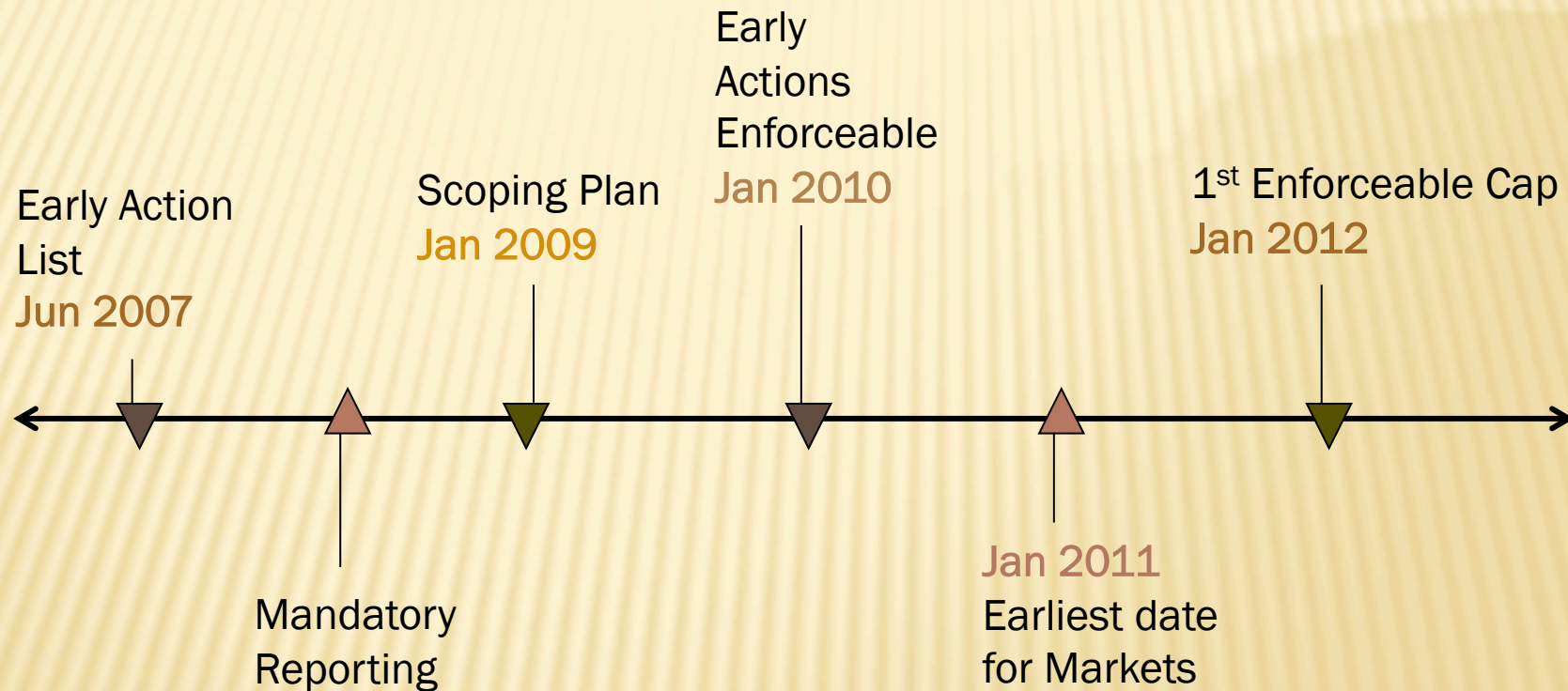
- ✖ Sets in statute Governor's target (1990 levels by 2020)
- ✖ Equals approximately 169 million tons emission reduction
- ✖ 29% below today's business as usual
- ✖ Market approaches provide flexibility, reduced costs
- ✖ Air Resources Board lead, with Cal/EPA and Climate Action Team to coordinate statewide climate policies



MAGNITUDE OF THE CHALLENGE



AB 32: IMPLEMENTATION TIMELINE



ADAPTATION

- ✕ Executive Order S-13-08
 - + Creates a Climate Change Adaptation Strategy
 - + Calls for the National Academy of Science to establish an expert panel to report on sea level rise
 - + Issues guidance to State agencies on how to plan for sea level rise
 - + Initiates studies on infrastructure projects and land-use policies

CLIMATE ADAPTATION STRATEGY

- ✕ Led by the California Natural Resources Agency
- ✕ Goal is to provide science, policy and action
- ✕ Divided into 7 sector working groups including
 - + Water
 - + Transportation
 - + Forestry
 - + Oceans and Coastal Resources
 - + Agriculture
 - + Habitat and Biodiversity
 - + Public Health

WHAT YOU CAN DO

- ✖ Save energy
- ✖ Walk, Rideshare or Take the Bus
- ✖ Inflate Your Tires
- ✖ Conserve Water
- ✖ Recycle



ROLE OF LEADERS

- ✗ Promote energy efficiency/conservation
- ✗ Invest in clean energy
- ✗ Support water conservation/efficiency
- ✗ Investigate water recycling options
- ✗ Enhance clean transportation options
- ✗ Develop policies that reduce vehicle miles traveled



CASE STUDY: HARMONY FARM SUPPLY & NURSERY

- ✕ Energy Efficiency and Conservation
- ✕ Sebastopol, California
- ✕ Total Renovation bill: \$3,000
 - + Partially offset by Small Business Energy Alliance
- ✕ Total Bill Savings: \$7,000 annually
 - + Heating and cooling systems upgraded with EnergyStar
 - + Lighting upgrades
- ✕ Total Greenhouse Gas Savings:
38 tons CO₂ annually

CASE STUDY: SETON MEDICAL CENTER COASTSIDE

- ✖ Recycling and waste reduction
- ✖ Moss Landing, California
- ✖ Total Bill Savings: \$8,000 to \$10,000 annually
 - + Implemented flat mop system
 - + Reduced floor chemical use by 75 %
 - + Implemented online version of manuals
 - + Diverted more than 25 tons of materials from disposal



CASE STUDY: RIVERSIDE COUNTY

- ✖ 4 major solar power projects in Riverside county will generate:
 - ✖ \$900 million total construction payroll
 - ✖ 1,964 jobs per day
 - ✖ 3,700 jobs at peak construction times
 - ✖ 447 full time jobs to run the facilities once completed
 - ✖ \$364 million spent locally for construction materials and supplies
 - ✖ \$26 million estimated Riverside County sales tax revenue

CREATING A CLEAN, GREEN ECONOMY

- ✘ California leads the nation in green jobs. In fact its more than double that of its closest competitor.
- ✘ California had more than 56% of U.S. venture capitol investment in 2008.
- ✘ California ranks number 1 in clean technology patents from 1999-2008.
- ✘ Venture capital investment in CA was about \$8.9 billion out of the \$50 billion nationwide.

TAKE ACTION

- ✖ Step 1 – Determine your carbon footprint
 - + You can't manage what you don't measure
- ✖ Step 2 – Make a plan to reduce emissions
 - + Identify sources of wasted fuel and energy
 - + Invest in efficiency



EXAMPLES OF EFFICIENCY INVESTMENTS

- ✗ Solar water heating
- ✗ Combined heat and power
- ✗ Refrigeration equipment
- ✗ Fleets
- ✗ Fuels
- ✗ Purchase Energy Star products
- ✗ Label light switches
- ✗ Retrofit for energy-efficiency lighting
- ✗ Install task lighting
- ✗ Install occupancy sensors
- ✗ Reset thermostats
- ✗ Install building management system
- ✗ Insulate exposed ductwork and pipework
- ✗ Capture waste heat
- ✗ Install tinted windows or reflective coatings
- ✗ Paint roof with reflective paint
- ✗ Use video-conference facilities
- ✗ Provide remote access
- ✗ Offer telecommuting
- ✗ Offer incentives to take public transit to work

FOR MORE INFORMATION

- ✕ climatechange.ca.gov
- ✕ westernclimateinitiative.org
- ✕ icapcarbonaction.com
- ✕ coolcalifornia.org
- ✕ arb.ca.gov

